

Proposed AORN Position Statement on Care of the Perioperative Patient With an Implanted Electronic Device

Preamble

Implanted electronic devices (IEDs) are widely used in a number of diverse medical applications, ranging from the familiar cardiac pacemaker to the less frequently encountered cochlear implant. The perioperative registered nurse should be aware that these devices require special precautions. Some medical equipment devices necessary for performing surgical and other invasive procedures may interfere with the functioning of IEDs. Patients with IEDs require special safety precautions when undergoing a surgical or other invasive procedure. One predominantly important precaution is managing the sources of inherent electromagnetic interference (EMI) in the perioperative patient care environment. Cardiac patients are particularly at risk because they may be dependent on the proper function of an IED to sustain their lives.

The goal of every surgical intervention is to provide optimal patient outcomes while maintaining a safe environment. Patients with IEDs may be encountered in any perioperative environment at any time. Patients with an existing IED may require emergency surgery, and planning for their care may necessarily be abbreviated; therefore, it is critical that every perioperative registered nurse have an understanding of what types of IEDs exist, how these devices function, and precautions that must be taken.

Position Statement

Perioperative registered nurses should be aware of potential patient safety hazards associated with specific IEDs and the appropriate patient care interventions and resources required to protect patients from injury and devices from damage.

Perioperative registered nurses should be knowledgeable about the types of IEDs, how they function, and the precautions that must be taken when caring for patients with these devices in place.

Health care facilities should provide education and training for personnel involved in the care of patients with IEDs.

All members of the surgical team have a responsibility to participate in managing the care of patients with IEDs.

The preoperative nursing assessment should include documenting the presence of any IED. Information about the specific device should be documented in the medical record before surgery. This information should include, but is not limited to,

- manufacturer and model of the IED,
- anatomic location of the device,
- technical considerations relative to the intraoperative phase of care, and
- information relative to postoperative patient education and discharge planning.

Health care facilities should have policies and procedures addressing the care and management of patients with IEDs. These should include, but are not limited to,

- assignment of primary responsibility for management of the IED;
- minimum information to be provided at the time of scheduling;
- a mechanism to identify and notify appropriate personnel needed in the OR to help perioperative team members deliver safe patient care; and
- the role, responsibilities, and limitations of health care industry representatives.

Perioperative registered nurses should refer to the AORN Guidance Statement “Care of the perioperative patient with an implanted electronic device,” for assistance in developing and implementing policies and procedures for caring for patients with IEDs who are undergoing surgical and other invasive procedures.

Definitions

Implanted electronic device—An electronic medical device that has been implanted into a patient for the purpose of treating a physiological defect or to replace sensory function (eg, permanent pacemakers, implantable cardioverter defibrillators, deep brain stimulators, spinal cord stimulators).

Electromagnetic interference (EMI)—Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics or electrical equipment. Synonym: Radio frequency interference.